

#### Alaska Department of Environmental Conservation

### **Quarterly Report of**

## Oil and Hazardous Substance Response

January 1 - March 31, 2001

### Significant Responses This Quarter

#### **Northstar Containment Cell #6**

Spill Date: January 16, 2001

Product/Quantity: Drilling Mud, 18,900 gallons

Cause: Cell Liner Failure

A containment cell gave way and released drilling mud on the BP Northstar pad. The containment cell was lined, and constructed of four rows of 12" X 12" wooden beams spiked together. BP contained the spill with a 150' X 200' temporary snow containment berm on the pad. Response actions included the use of front-end loaders and hand tools to pick up the mud and move it back toward the area where the release occurred. The drilling mud did not leave the island or contact any seawater. Drilling was suspended and remained on hold pending completion of the cleanup and investigation of the cause. An ADEC representative worked with BP's investigation team to determine the cause of the containment cell breach. BP will supply a copy of their investigation upon completion.

### 42 Mile Red Dog Mine Zinc Spill

Spill Date: February 16, 2001
Product/Quantity: Zinc, 6 tons
Cause: Truck Rollover

While traveling from the Cominco Red Dog mine to the Kotzebue Sound port facility, a truck pulling two trailers containing zinc concentrate, ran off the road and overturned. An estimated 6 tons of zinc concentrate was spilled over a 10 ft. by 20 ft. area of road gravel and tundra, from the second transport container. Tarps were placed over the spilled zinc concentrate to prevent the powdery substance from blowing from the site. The truck and trailers were removed from the incident site on Sunday, February 18. Due to weather conditions, final cleanup of the spilled zinc concentrate was not completed until February 20. The spilled product and the contaminated snow and soils were brought back to the mine site and reintroduced into the milling process. The nearest body of water is Anxiety Creek, which is 2.0 miles from the incident site. Survey of the spill area will be done this spring, using a Niton 700 x-ray Spectrometer, for the possible spreading of the contaminant from the spill site.

#### 444

#### GC1 Flow Line Release

Spill Date: February 20, 2001

Product/Quantity: Crude, Methanol, 11,500 gallons (est.)

Cause: Line Rupture

A six-inch flow line ruptured at the BP Western Operating Area facility, spilling crude oil and methanol from the line. BP estimated the volume at approximately 11,500 gallons. The final spill volume has not yet been determined. The spill site (35,000 square feet) consisted mostly of ice and some tundra. The majority of the spilled product pooled on the ice above Big Lake. Delineation holes were drilled into the ice around the spill site,

and product was found pooled beneath the ice of Big Lake. A vacuum truck was used to recover liquids from the delineated holes. The entire site has had the snow removed and the surface scraped. An estimated 11,000 gallons of liquids (crude, methanol, and water) were recovered using a vacuum truck, and 8,581 cubic yards of snow and ice were also removed. An additional 1,344 gallons of contaminated water was removed from drill holes at the ice-lake bottom interface. On February 23, a forward-looking infrared (FLIR) survey was performed, and no other leaks were detected in this or any other active flow lines.

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#### **Grind & Inject Facility, Surfcote Pad**

Spill Date: March 6, 2001

Product/Quantity: Drilling Mud, 3,000 - 6,000 gallons

Cause: Line Erosion

An eroded hole in an 8" pressurized line, used to transfer drilling mud, resulted in a release at the grind and inject facility, Surfcote Pad. The mud formed a continuous layer in the snow, approximately 500 feet wide, and 2,200 feet long, from the fractured line. GPS measurements indicated the total spill size (surface area) to be 12.8 acres. The majority of the spill was to snow and tundra. Site cleanup was temporarily slowed between March 9 and March 12, due to the extremely cold weather conditions. Cleanup crews used snowmobiles with trailers, and an autocar with a dumpbox, to complete the cleanup of the contaminated snow. The area of contamination was approximately 500 yards in length, and 75 yards wide. The crews recovered a total of 510 yards of contaminated snow, which will be reintroduced into the grind and inject circuit.

#### 444

#### Drill Site 7, Well #8

Spill Date: February 19, 2001
Product/Quantity: Crude Oil, 345 gallons
Cause: Eroded valve on well tree

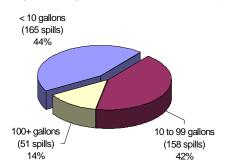
On the evening of February 19, BP discovered a leak at Drill Site 7, Well #8. After an unsuccessful attempt to control the release by closing the automated and manual valves, BP pumped approximately 600 barrels of seawater down the well to control the formation pressure. The well was brought under control and BP continued to pump seawater down the hole to keep pressure on the formation. Most of the estimated 345 gallons of crude pooled around the well house and ran into the reserve pit. A much smaller unknown quantity of crude misted from the well house covering a large area of the pad in the reserve pits. Pooled oil and contaminated gravel was removed using frontend loaders and hand tools. Oil that was misted on the snow was removed by hand. The Department has requested that BP submit a plan for decommissioning Well house # 8. Further cleanup will be assessed based on the sample results.

444

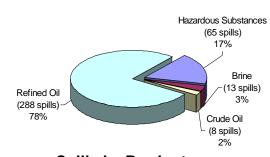
## **Data Summary**

# Oil and Hazardous Substance Spills January 1- March 31, 2001

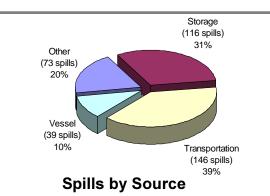
(releases reported in pounds were not included)

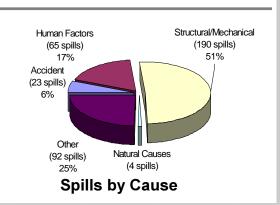


#### Spills by Size Class



#### **Spills by Product**





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## Spill News

# DEC ASSISTANCE TO TAIWAN

The Taiwan government requested assistance from PERP following a January 14 spill from the Greek iron ore freighter Amorgos. John Bauer was selected to travel to Taiwan and assist Taiwan EPA with the spill cleanup. The freighter ran aground on a submerged coral reef, releasing about 300,000 gallons of intermediate fuel oil (bunker oil), which impacted a Taiwanese National Park and an ecological preserve area. During his March 2-6 visit, Mr. Bauer provided technical advice on shoreline cleanup technologies, salvage contingency plans, damage assessment and spill response readiness.



Waste disposal.



Press conference (John Bauer, right).

# METH LAB CLEANUP ISSUES

Department staff met with DEA and found that the number of methamphetamine lab busts is increasing dramatically in Anchorage, and the problem is much more prevalent than current numbers indicate. On March 2. Department staff met with representatives from the Alaska State Troopers, Federal Drug Enforcement Agency, Alaska Department of Health and Social Services, and the Anchorage Fire and Police Departments, to discuss coordinated response and notification procedures to methamphetamine laboratory incidents. Enforcement agencies emphasized that the number of methamphetamine drug labs is expected to increase within Alaska especially in the Mat-Su Valley and on the Kenai Peninsula. In an effort to ensure coordinated actions between the various agencies, the department will develop procedures to coordinate ADEC notification for the purpose of investigating the environmental impacts associated with illegal drug labs. The Department will also develop protocols for the purpose of gathering evidence of environmental crimes linked to illegal drug labs. All parties recognized that the larger issue was reoccupation of former dwellings and structures used as methamphetamine labs, but acknowledged that no governmental agency has statutory authority to address the issue. The Department's goal is to focus on developing notification guidelines for reporting drug lab busts where evidence suggests the potential of significant contamination or discharge of chemicals outside of the residence.

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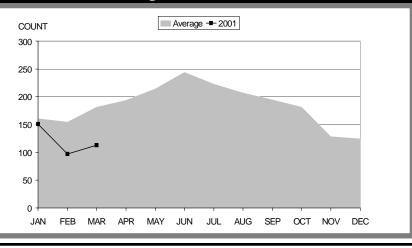
#### **GALAPAGOS ASSISTANCE**

Governor Knowles offered assistance to the government of Ecuador following the tanker Jessica spill in the Galapagos Islands. The Depart-

## Annual Spill Trends -- July 1995 - March 2001 (excluding Brine)

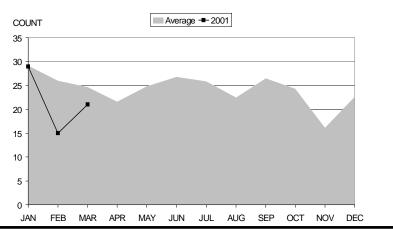
#### **ALL SPILLS**

Month	1995	1996	1997	1998	1999	2000	2001	Average
JAN		179	160	172	162	140	151	161
FEB		156	161	162	195	158	97	155
MAR		162	189	208	213	204	113	182
APR		179	211	197	219	164		194
MAY		207	228	262	194	184		215
JUN		237	231	262	289	202		244
JUL	236	217	218	205	239	224		223
AUG	274	193	179	189	208	198		207
SEP	224	184	194	187	210	170		195
OCT	192	157	151	206	214	168		181
NOV	129	123	110	145	131	134		129
DEC	143	109	113	109	138	135		125
Total	1,198	2,103	2,145	2,304	2,412	2,081	361	



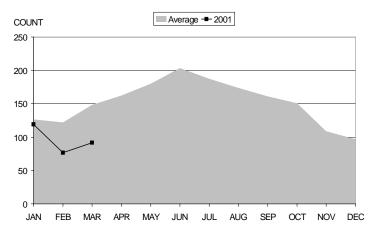
#### **HAZARDOUS SUBSTANCES**

Month	1995	1996	1997	1998	1999	2000	2001	Average
JAN		33	35	32	25	21	29	29
FEB		30	23	36	31	21	15	26
MAR		23	26	25	27	26	21	25
APR		16	23	34	19	16		22
MAY		16	31	34	21	22		25
JUN		21	26	48	23	16		27
JUL	34	18	36	20	26	21		26
AUG	46	16	22	17	21	13		23
SEP	23	20	23	25	36	32		27
OCT	30	31	26	21	23	15		24
NOV	19	15	22	11	16	14		16
DEC	26	25	28	12	23	22		23
Total	178	264	321	315	291	239	65	



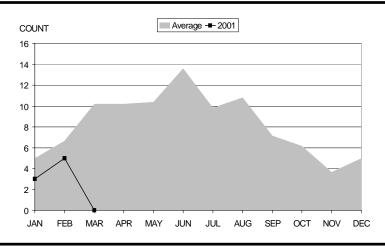
#### **REFINED OIL PRODUCTS**

Month	1995	1996	1997	1998	1999	2000	2001	Average
JAN		143	120	131	133	113	119	127
FEB		116	133	117	157	133	77	122
MAR		134	152	169	175	168	92	148
APR		148	177	147	197	143		162
MAY		180	185	215	165	154		180
JUN		199	194	198	251	177		204
JUL	192	187	175	177	201	193		188
AUG	216	162	149	167	174	173		174
SEP	197	150	163	157	167	133		161
OCT	155	120	119	179	183	149		151
NOV	109	103	84	129	110	118		109
DEC	109	82	79	93	111	107		97
Total	978	1,724	1,730	1,879	2,024	1,761	288	



#### **CRUDE OIL**

Month	1995	1996	1997	1998	1999	2000	2001	Average
JAN		3	5	9	4	6	3	5
FEB		10	5	9	7	4	5	7
MAR		5	11	14	11	10		10
APR		15	11	16	3	6		10
MAY		11	12	13	8	8		10
JUN		17	11	16	15	9		14
JUL	10	12	7	8	12	10		10
AUG	12	15	8	5	13	12		11
SEP	4	14	8	5	7	5		7
OCT	7	6	6	6	8	4		6
NOV	1	5	4	5	5	2		4
DEC	8	2	6	4	4	6		5
Total	42	115	94	110	97	82	8	

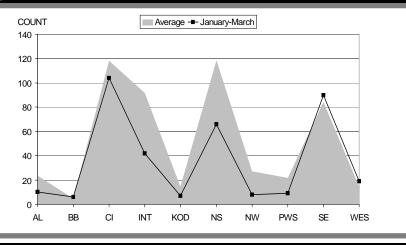


## spills reported by SUBAREA (excluding Brine)

#### **ALL SPILLS**

Jan - Mar 2001 compared to same quarter in prior years

	January-March							
Subarea	1995	1996	1997	1998	1999	2000	2001	Average
Aleutian (AL)		33	27	28	23	21	10	24
Bristol Bay (BB)		4	3	6	6	3	6	5
Cook Inlet (CI)		119	99	124	130	133	104	118
Interior (INT)		74	76	119	90	99	42	92
Kodiak (KOD)		11	14	17	17	14	7	15
North Slope (NS)		143	136	106	106	102	66	119
Northwest Arctic (NW)		16	20	47	41	12	8	27
Prince William Sound (PWS)		20	23	18	24	23	9	22
Southeast (SE)		62	100	62	119	78	90	84
Western Alaska (WES)		15	12	15	14	17	19	15
Total for Quarter		497	510	542	570	502	361	

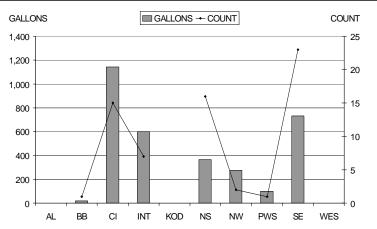


#### **HAZARDOUS SUBSTANCES**

January 1 - March 31, 2001

Subarea	Count	Gallons
Aleutian (AL)		
Bristol Bay (BB)	1	20
Cook Inlet (CI)	15	1,144
Interior (INT)	7	602
Kodiak (KOD)		
North Slope (NS)	16	366
Northwest Arctic (NW)	2	275
Prince William Sound (PWS)	1	100
Southeast (SE)	23	731
Western Alaska (WES)		
Total for Quarter	65	3,238

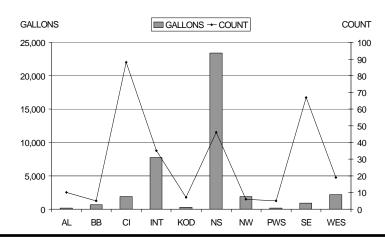
Excludes releases reported in pounds: Anhydrous Ammonia (2 releases, 225 lbs); Ethylene Glycol (1 release, 7,234 lbs); Freon (1 release, 4,000 lbs); Other (2 releases, 120,000 lbs); Urea (1 release, 1,500 lbs)



#### REFINED OIL PRODUCTS

January 1 - March 31, 2001

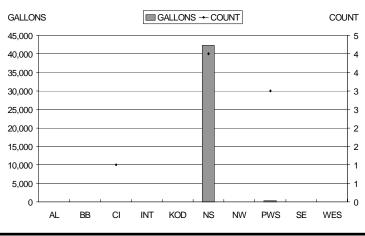
Subarea	Count	Gallons
Aleutian (AL)	10	148
Bristol Bay (BB)	5	688
Cook Inlet (CI)	88	1,884
Interior (INT)	35	7,718
Kodiak (KOD)	7	301
North Slope (NS)	46	23,366
Northwest Arctic (NW)	6	1,895
Prince William Sound (PWS)	5	180
Southeast (SE)	67	904
Western Alaska (WES)	19	2,171
Total for Quarter	288	39,255



#### **CRUDE OIL**

January 1 - March 31, 2001

Subarea	Count	Gallons
Aleutian (AL)		
Bristol Bay (BB)		
Cook Inlet (CI)	1	3
Interior (INT)		
Kodiak (KOD)		
North Slope (NS)	4	42,358
Northwest Arctic (NW)		
Prince William Sound (PWS)	3	311
Southeast (SE)		
Western Alaska (WES)		
Total for Quarter	8	42,672

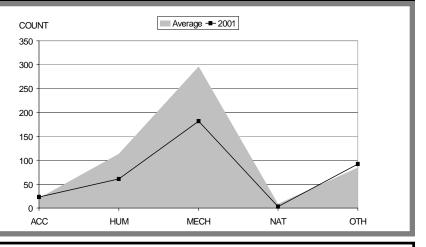


## spills reported by CAUSE (excluding Brine)

#### **ALL SPILLS**

Jan - Mar 2001 compared to same quarter in prior years

		January-March						
Subarea	1995	1996	1997	1998	1999	2000	2001	Average
Accident (ACC)		25	19	23	26	12	23	21
Human Factors (HUM)		110	131	124	117	85	61	113
Structural/Mechanical (MECH)		263	260	340	314	304	182	296
Natural Causes (NAT)		6	13	4	4	16	3	9
Other/Unknown (OTH)		93	87	51	109	85	92	85
Total for Quarter		497	510	542	570	502	361	

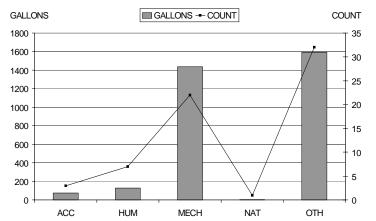


#### **HAZARDOUS SUBSTANCES**

January 1 - March 31, 2001

Cause	Count	Gallons
Accident (ACC)	3	76
Human Factors (HUM)	7	126
Structural/Mechanical (MECH)	22	1,438
Natural Causes (NAT)	1	5
Other/Unknown (OTH)	32	1,593
Total for Quarter	65	3,238

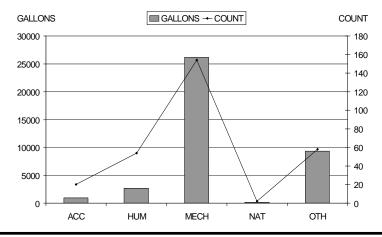
Excludes releases reported in pounds: Anhydrous Ammonia (2 releases, 225 lbs); Ethylene Glycol (1 release, 7,234 lbs); Freon (1 release, 4,000 lbs); Other (2 releases, 120,000 lbs); Urea (1 release, 1,500 lbs)



#### **REFINED OIL PRODUCTS**

January 1 - March 31, 2001

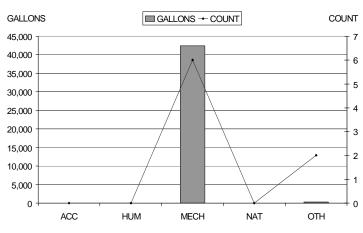
Cause	Count	Gallons
Accident (ACC)	20	943
Human Factors (HUM)	54	2,705
Structural/Mechanical (MECH)	154	26,162
Natural Causes (NAT)	2	125
Other/Unknown (OTH)	58	9,320
Total for Quarter	288	39,255



#### **CRUDE OIL**

January 1 - March 31, 2001

Cause	Count	Gallons
Accident (ACC)		
Human Factors (HUM)		
Structural/Mechanical (MECH)	6	42,371
Natural Causes (NAT)		
Other/Unknown (OTH)	2	301
Total for Quarter	8	42,672

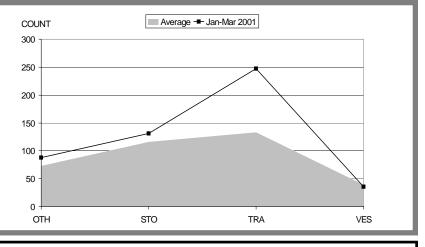


## spills reported by SOURCE (excluding Brine)

#### **ALL SPILLS**

Jan - Mar 2001 compared to same quarter in prior years

		January-March						
Source	1995	1996	1997	1998	1999	2000	2001	Average
Other/Unknown (OTH)		102	135	68	83	88	73	95
Storage (STO)		153	144	178	175	131	116	156
Transportation (TRA)		202	163	242	245	247	133	220
Vessel (VES)		40	68	54	67	36	39	53
Total for Quarter		497	510	542	570	502	361	

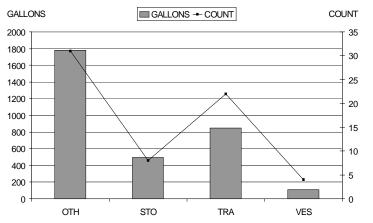


#### **HAZARDOUS SUBSTANCES**

January 1 - March 31, 2001

Source	Count	Gallons
Other/Unknown (OTH)	31	1,782
Storage (STO)	8	495
Transportation (TRA)	22	850
Vessel (VES)	4	111
Total for Quarter	65	3,238

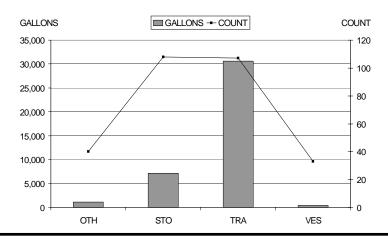
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#### **REFINED OIL PRODUCTS**

January 1 - March 31, 2001

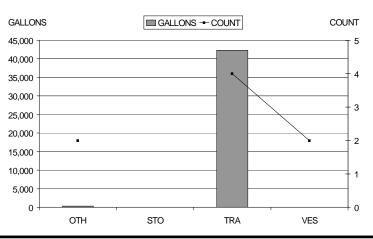
Source	Count	Gallons
Other/Unknown (OTH)	40	1,121
Storage (STO)	108	7,128
Transportation (TRA)	107	30,583
Vessel (VES)	33	423
Total for Quarter	288	39 255



#### **CRUDE OIL**

January 1 - March 31, 2001

Source	Count	Gallons
Other/Unknown (OTH)	2	303
Storage (STO)		
Transportation (TRA)	4	42,358
Vessel (VES)	2	11
Total for Quarter	8	42,672



## Spill News

ment maintained daily communications with Ecuador's Consul General in San Francisco and provided technical assistance in shoreline cleanup and vessel liability. The Department also provided information on Alaska's spill co-ops and offered state personnel to assist with the response. The Consul General forwarded the information to the Minister of Environment. Ultimately, winds blew the spilled oil away from the islands, and Alaska's resources were not required.



#### HOME HEATING OIL TANK INITIATIVE

On the weekend of March 17 and 18, Department staff manned a booth at the Juneau Home Builders Association Home Show. This was an informational booth aimed primarily at home heating oil tanks but information on septic systems was also provided at the show. There was good, general interest in home heating oil tanks. Homeowners viewed displays of corroded tanks and fuel lines, and picked up informational pamphlets on installation and maintenance of fuel systems. Over 130 homeowners visiting the booth also discussed specific concerns and interests in heating oil tanks and systems with department staff. Several questions were posed regarding insurance coverage for oil spills, responsibility for cleanup and what an "average cleanup" would cost. On March 24-25, department staff provided similar information on home heating oil tanks at a home show in Palmer.



#### All Significant Responses (January-March 2001)

#### JANUARY 1/04

3/7

3/27

3/28

1/0-	wappa inc. Laboratory i iic
1/10	Gold Rush Estates Fuel Spill
1/16	Northstar Containment Cell #6
1/19	F/V Miss Marie
1/20	Elim Water Plant
1/22	Injection Well R Pad Well 3Al
1/23	Nome D Street Spill
1/25	Phillips Home Heating Oil Spill
1/30	F/V Veter
<b>FEBRUAR</b>	Υ
2/05	Dolly Varden Mystery Sheen
2/12	T/V SeaRiver Benicia
2/16	42 Mile Red Dog Mine Zinc Spill
2/19	Drill Site 7, Well #8, Prudhoe Bay
2/19	GC1 Flow Line release, Prudhoe
2/20	Chignik Norquest Seafoods
2/20	Windray Barge
MARCH	
3/1	Amodo Home Heating Oil Spill
3/6	Grind & Inject Facility, Surfco Pad

Eielson AFB, Building 6248

HAGO line near Tank 901 Mill Door M-4 Slurry Spill

Mappa Inc. Laboratory Fire

#### More information is available on the web at

Bay

http://www.state.ak.us/dec/dspar/perp

## Spill Digest

Oil and Hazardous Substance Spills reported to DEC January 1-March 31, 2001

#### **HAZARDOUS SUBSTANCES**

(does not include brine or releases reported in pounds)

Total Count: 65 Total Gallons: 3,238

#### Top 5 Substances

Product	Count	Gallons
Propylene Glycol	7	534
Corrosion Inhibitor	2	501
Chlorine	1	500
Ethylene Glycol (Antifreeze)	14	182
Methyl Alcohol (Methanol)	4	72

#### Top 5 Causes

•		
Cause	Count	Gallons
Leak, Other	7	640
Line Ruptured	6	548
Seal Failure	2	109
Intentional Release	1	55
Connection Faulty	2	51

#### Top 5 Sources

Source	Count	Gallons
Pipeline	2	530
Drum	5	223
Water Treatment Fac.	1	200
Well	7	166
Industrial Vehicle	11	149

#### CRUDE AND REFINED OIL

Total Count: 296 Total Gallons: 81,927

#### Top 5 Substances

Product	Count	Gallons
Crude	8	42,672
Diesel	142	15,931
Gasoline	50	1,203
Hydraulic Oil	48	872
Engine Lube Oil	21	549

#### Top 5 Causes

Cause	Count	Gallons
Line Ruptured	34	43,007
Containment Overflow	2	19,110
Seal Failure	8	3,416
Tank Overfill	39	2,220
Leak, Other	48	1,074

#### Top 5 Sources

Source	Count	Gallons
Pipeline	4	42,155
Well	18	22,561
Industrial Vehicle	50	4,417
Aircraft	17	3,367
Home Heating Tank	22	2,464

## 2001 Drill Calendar

April 24	Gastineau Channel Drill (DEC), Juneau
May 2-3	Bristol Bay Hazmat Project (ADEC), King
	Salmon

June 1 Whittier Hazmat Exercise (USCG), Whittier

June 4-6 PWS Tanker Drill GRS Development (Chevron),

Valdez/Chenega

June 27 TAPS Lowe River Drill (APSC), Valdez

August 18 Joint Anchorage/Fairbanks Hazmat Response

Exercise (ADEC), Glennallen

August 22 North Slope Mutual Aid Drill (Phillips), North

Slope

Visit the PERP website for updated information on drills and training. http://www.state.ak.us/dec/dspar/perp/drill\_tr.htm

#### SEND COMMENTS AND SUBSCRIPTION REQUESTS TO:

Camille Stephens, 410 Willoughby Ave. Suite 303, Juneau, AK 99801

email: Camille\_Stephens@envircon.state.ak.us

### At a glance... January 1 - March 31, 2001

### Spill Summary

Total Spills Reported\* (includes 13 brine releases): 374
Oil -- Total Gallons Released 81,927
Hazardous substances\* -- Total Gallons Released 3,238
Brine -- Total Gallons Released 1,966

#### Oil Releases

Total Spills Reported: 296

Largest Volume Released by Category

Substance (8 spills; 42,672 gal)

Cause (34 spills; 43,007 gal)

Source (4 spills; 42,155 gal)

Largest Single Release

Crude; 42,000 gal

#### Hazardous Substance Releases \* (excluding brine)

Total Spills Reported:
Largest Volume Released by Category

Substance (7 spills; 534 gal)

Cause (7 spills; 640 gal)

Source (2 spills; 530 gal)

Leak, Other

Pipeline

Largest Single Release

Corrosion Inhibitor; 500 gal

\*Excludes 7 releases reported in pounds: Anhydrous Ammonia (2 releases, 225 lbs); Ethylene Glycol (1 release, 7,234 lbs); Freon (1 release, 4,000 lbs); Other (2 releases, 120,000 lbs); Urea (1 release, 1,500 lbs)



Prevention and Emergency Response Program Division of Spill Prevention and Response Department of Environmental Conservation 410 Willoughby Avenue, Suite 303 Juneau, AK 99801-1795

http://www.state.ak.us/dec/dspar/perp/home.htm

Phone: 907-465-5220 FAX: 907-465-5244

mail label

#### In This Issue

65

#### **Page**

- 1 <u>Significant Responses</u>
- 2/3 Spill News
- 2 Data Summary
- 3 Spill Digest
- 4 <u>Drill Calendar</u>

At a glance...

**Insert - Quarterly Data**